PROGRESS REPORT

GRANT NUMBER: 7310037

Oceana In-Stream Hydrokinetic Device Evaluation

Oceana Energy Company

9/1/2013 – 12/31/2013

Deliverables Submitted

- Project tasks and milestones were preprogrammed and approved during this reporting period due to a delay in the receipt of funds by investor to Oceana.
- Project began late in the reporting period and is on track with the new plan
- No deliverables were submitted this reporting period

Budget

Amount Invoiced**:** $0
Match Recorded: ~$40K

Schedule Status

- Schedule was recently updated and presented in section below.
- Schedule is on track for summer testing at AHERC

Percent Complete

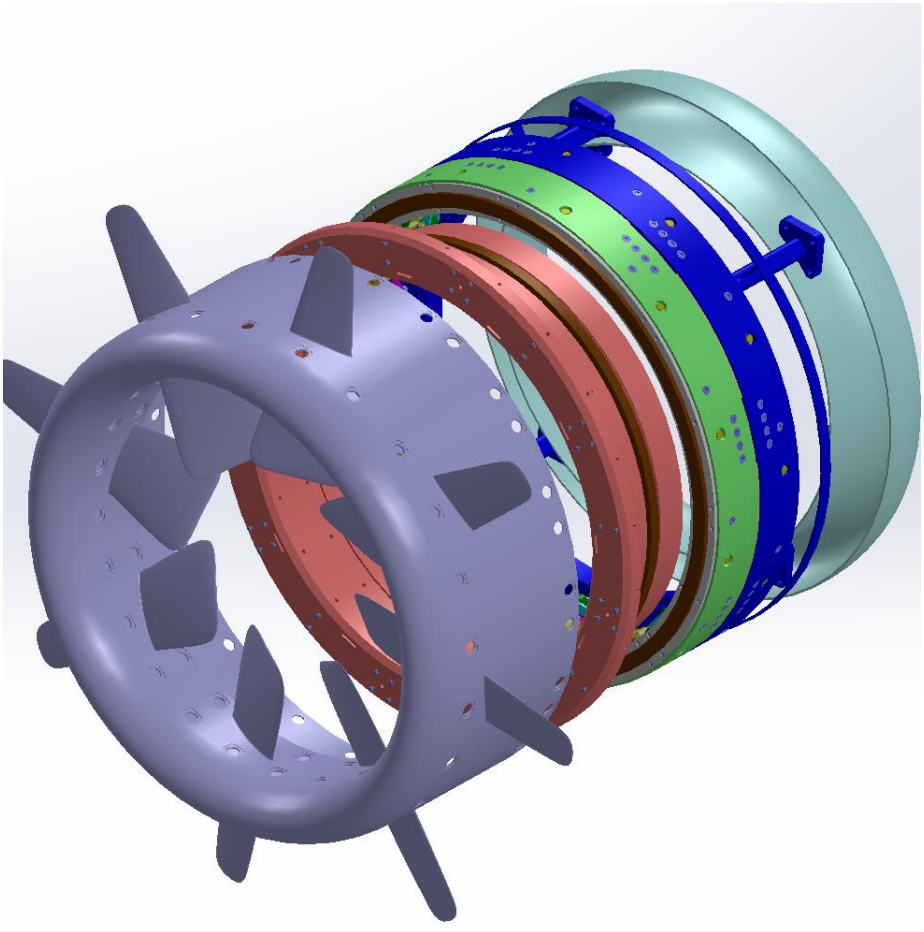
The following is the renegotiated schedule of tasks along with completion at end of reporting period.

Milestone	Task		Start Date	End Date	% Complete
	1	Oceana device design/engineering	Nov-13	Feb-14	50%
	2	Detailed instrumentation plan	Dec-13	Jan-14	50%
	3	Sign AHERC test bed agreement; down payment for 21 days of testing	Jan-14	Jan-14	50%
	4	Oceana device fabrication	Jan-14	Apr-14	0%
MS 1: AEA accepts instrumentation plan					
	5	Configure instrumentation and SCADA, instrumentation mounts	Feb-14	Jun-14	10%
	6	Analyses and device testing (Carderock)	May-14	Jun-14	0%
MS 2: AEA accepts Carderock test results					
	7	Ship Oceana device to AK	Jun-14	Jun-14	0%
	8	Final assembly for deployment	Jun-14	Jun-14	0%
MS 3: AEA approves testing schedule and deployment/retrieval procedures					
	9	River deployment - Season 1	Jul-14	Oct-14	0%
MS 4: AEA accepts season 1 test results and plans for device modifications					
	10	Evaluate and modify device	Oct-14	Apr-15	0%
	11	River deployment - Season 2	Jun-15	Sep-15	0%
	12	Data analysis and draft project report	Oct-15	Nov-15	0%
	13	Final project report	Nov-15	Dec-15	0%
MS 5: AEA accepts final report					
	14	Project management	Nov-13	Dec-15	10%

Work Progress

The following was completed in the reporting period:

- Revised schedule of milestones and tasks
- Draft contracts with ACEP and UAA
- Periodic teleconferences with ACEP, UAA and Oceana
- Instrumentation plan evolution including the potential borrowing of equipment from other sources
- Electromagnetic design of the next generation of permanent magnet generator system compatible with the Oceana device geometric constraints started and nearly completed. Pending some final refinements based on feedback from mechanical design. Image of design is shown below.
- Preliminary quotes on generator lamentations and coils
- Axial magnetic bearing sizing and preliminary quoting on the magnets
- Developed the new device mechanical design concept, including several iterations for integrating the electromechanical components.
- Scheduled a kickoff meeting for January with the Carderock engineers relative to the analyses and testing efforts.
- Initiated transportation of the testing hardware from Carderock to Oceana for modification.



Future Work

Within the next reporting period, the following tasks are anticipated:

- Place orders for electromagnetic components
- Oceana device mechanical design completed (including fabrication drawings).
- Mechanical components either out for quotes or orders placed
- Caderock engineers started and completion of the new hydrofoil design
- Manufacturing drawings of the hydrofoils started
- Contracts executed with UAA and ACEP
- Instrumentation plan, including details on borrowed equipment, to be finalized.
- Instrumentation mounting identified and preliminary design concepts
- Barge modifications started
- Device lifting mechanism concept identified and preliminary calculations and sketches completed.